

In re Patent Application of:
PROCTOR, JR.
Serial No. **09/997,732**
Filing Date: **November 29, 2001**
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REMARKS

Applicant would like to thank the Examiner for the thorough examination of the present application. Applicant would also like to thank the Examiner for correctly indicating as allowable the subject matter of dependent Claims 9-11, 16-19, 28 and 33-36.

New Claims 37-59 are being added, and are directed to a subscriber unit. The arguments supporting patentability of the claims are provided below.

I. The Claims

The present invention, as recited in independent Claim 1, for example, is directed to a method for controlling timing of synchronization maintenance messages between a subscriber access unit and a base station processor in a wireless CDMA system. The method comprises providing at least one link between the subscriber access unit and the base station processor, with the link establishing synchronization between the subscriber access unit and the base station processor. A synchronization maintenance message is transmitted from the subscriber access unit to the base station processor. A timing interval is computed in which to periodically resend the synchronization maintenance message for maintaining an idling mode connection between the subscriber access unit and the base station processor.

The method in accordance with the present invention advantageously allows the subscriber access unit to transmit the synchronization maintenance message to the base station processor - instead of the base station processor having to transmit a synchronization message to the subscriber access

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units.

Independent Claim 20 is similar to independent Claim 1 and is directed to a system for controlling timing of synchronization maintenance messages between a subscriber access unit and a base station processor in a wireless CDMA system.

New independent Claim 37 is similar to independent Claim 1 and is directed to a subscriber unit comprising a wireless transceiver configured to provide wireless communications of digital signals over a digital communications path in a wireless CDMA system, and a bandwidth manager coupled to the wireless transceiver and configured to receive over the digital communications path a time slot assignment from a remote wireless transceiver. The wireless transceiver is configured to transmit a gated idle mode signal over the digital communications path based upon the time slot assignment during an idle mode connection wherein the wireless transceiver is powered on but not actively sending data so that the remote wireless transceiver can maintain timing alignment.

New independent Claim 43 is similar to new independent Claim 37 and is directed to a CDMA mobile terminal. Instead of a remote wireless transceiver, a CDMA base station is recited.

New independent Claim 49 is similar to new independent Claim 37 and is also directed to a subscriber unit. Claim 49 recites that digital signals being communicated use at least one radio frequency channel, and that the bandwidth manager makes available a plurality of subchannels within each radio frequency channel, and allocates

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the available subchannels on an as-needed basis with the number of subchannels changing during a given session. The wireless transceiver transmits a gated idle mode signal in an available subchannel over the digital communications path during an idle mode connection wherein the wireless transceiver is powered on but not actively sending data.

New independent Claim 56 is similar to new independent Claim 37 and is also directed to a subscriber unit. In addition to the bandwidth manager receiving a time slot assignment, a power control message is also received from a remote wireless transceiver. The bandwidth manager computes a power level corresponding to the power control message, as well as selecting an idle mode signal spreading code. The wireless transceiver transmits a gated idle mode signal to the remote wireless transceiver over the digital communications path based upon the time slot assignment, and a code phase lock is maintained and timing alignment are maintained with the remote wireless transceiver.

II. The Claims Are Patentable

The Examiner rejected independent Claims 1 and 20 over the Haartsen patent in view of the Ozluturk patent. Referring now to the Haartsen patent, Haartsen is directed to a method and system for synchronizing private radio systems. The Examiner has taken the position that Haartsen discloses the claimed invention except for teaching that the system is a CDMA system. The Examiner cited the Ozluturk patent as disclosing synchronization in a CDMA system.

The Applicant submits that even if the references were selectively combined as suggested by the Examiner, the

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claimed invention is still not produced. In particular, the Haartsen patent and the Ozluturk patent each discloses that the synchronization maintenance message is transmitted from the base station to the subscriber access unit - whereas in the claimed invention, the synchronization maintenance message is transmitted from the subscriber access unit to the base station processor. Reference is directed to column 5, lines 54-56 of Haartsen, which provides:

"At step 156, the mobile terminal (30) listens to the cellular broadcast channel to synchronize its timing and frequency references." (Emphasis added).

In addition, FIG. 5 in the Haartsen patent Further illustrates "resync" signals being transmitted from the cellular network base station to the mobile subscriber access unit. The Haartsen patent thus fails to disclose that the subscriber access unit transmits the synchronization maintenance message to the base station as in the claimed invention.

The Ozluturk patent also fails to provide this noted deficiency. Reference is directed to column 4, lines 60-67 of Ozluturk, which provides:

"In accordance with the present invention, the base station 14 continuously transmits a pilot code 40 to all of the subscriber units 16 located within the transmitting range of the base station 14. The pilot code 40 is a spreading code which carries no data bits. The pilot code 40 is used by subscriber unit 16 for acquisition and synchronization, as well as for determining the parameters of the adaptive

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matched filter used in the receiver."
(Emphasis added).

The Ozluturk patent thus fails to disclose that the subscriber access unit transmits the synchronization maintenance message to the base station as in the claimed invention.

The Applicant thus submits that even if the references were selectively combined as suggested by the Examiner, the claimed invention is still not produced. Accordingly, it is submitted that independent Claim 1 is patentable over the Haartsen patent in view of the Ozluturk patent.

Independent Claim 20 is similar to amended independent Claim 1. New independent Claims 37, 43, 49 and 56 are similar to independent Claim 1. Therefore, it is submitted that these claims are also patentable over the Haartsen patent in view of the Ozluturk patent.

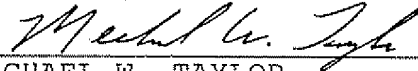
In view of the patentability of independent Claims 1, 20 and 37, it is submitted that the dependent claims, which include yet further distinguishing features of the invention are also patentable. These dependent claims need no further discussion herein.

III. CONCLUSION

In view of the arguments provided herein, it is submitted that all the claims are patentable. Accordingly, a Notice of Allowance is requested in due course. Should any minor informalities need to be addressed, the Examiner is encouraged to contact the undersigned attorney at the telephone number listed below.

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Respectfully submitted,



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